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ABSTRACT

This paper, reviews the history of mainstreaming and the mixed results of its research base. Research findings on specific variables are outlined for consideration when integrating students with special needs. The variables discussed include: (1) academic achievement, which focuses on early identification of learning needs, and preparation for the transition from school to work and adult life; (2) social acceptance and interaction, which emphasizes the importance of peer relationships and the discouraging research findings on disabled/non-disabled interactions; (3) self-concept, which considers the effect of special class placement on self-concept; and (4) teacher attitudes and knowledge, which notes teachers' responses to mainstreaming and to the learning and social needs of individual students. It is concluded that successful integration benefits both exceptional and non-exceptional students, but that successful integration is only achieved through the right combination of environmental factors; support services; attitudes of educators; teaching skills; and the personality, learning, and social skills brought to the classroom by the disabled student. (JDD)

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HOW ARE WE DOING?
ISSUES AND RESEARCH RELATED TO THE INTEGRATION OF STUDENTS WITH SPECIAL NEEDS

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HOW ARE WE DOING?

ISSUES AND RESEARCH RELATED TO THE INTEGRATION OF STUDENTS WITH SPECIAL NEEDS

Janet M. Quintal

During the past two decades there has been an ever growing movement in North American and Western European society toward the desegregation of minority groups. Historically the most obvious example of this process occurred with attempts to desegregate racial or cultural minorities and create equal opportunities for all individuals. As the wider social trend continued into the late sixties and early seventies the rights of the mentally handicapped and physically disabled gained public focus. Over the years there has been a de-emphasis of institutions and other facilities that restricted, or often effectively eliminated, the opportunity for individuals with special needs to participate to the maximum of their potential in society.

In keeping with widespread social changes educational systems began to focus on the types of services being provided for special education students and to challenge previously routine decisions to educate students with special needs in settings that were either partially or totally segregated from the mainstream. The changing values and focus of the seventies finally culminated in the passing of the Education of All Handicapped Children Act by the United States Senate in 1975. During the subsequent decade the practice of integrating children with various disabilities into the educational mainstream has become policy in most Canadian provinces.

It is important to understand the changes in educational policy within the wider historical context not only for sociological reasons, but also because it is important to appreciate that the trend away from segregated education resulted from social forces based on a growing respect and concern for civil rights. It was not a result of educational decision making supported by a solid research base favoring more regular placements. In fact the conclusions of research that predated legislation mandating mainstreaming or the provision of an appropriate program were ambiguous at best (Polloway, 1984). Describing the history of education for educably retarded students Meyers, MacMillan and Yoshida (1980) noted that:

> "The Zeitgeist for the education of the mildly retarded, which first supported the establishment of (special) classes, switched to mainstreaming without adequate empirical information on comparative goodness of programs. Empirical ambiguity permitted other forces, both political and philosophical, to push the change..." (p. 179)

Despite the lack of conc'usive initial empirical support for integrating children with special needs, we've made significant legal, administrative and procedural strides in implementing policies and in placing and maintaining students in these settings. But it shouldn't be adequate to be philosophically committed to integration without also attempting to empirically evaluate the relative ability of different types of placements to meet the educational, social and vocational needs of individual students who require some type of special educational programming. For example, once placed in a setting deemed to be the most appropriate, are children receiving appropriate programs designed to meet their learning needs? How aware are teachers of the specific disabilities and needs of individual children integrated into their classrooms? Do they have the knowledge and resources to create and implement appropriate programs? Are the students being accepted by their peers and included as participating members of the mainstream? These are all important questions and it's exciting to know that one of the objectives of this symposium is to generate interest in research in special education, particularly in relation to Canadian educational programs.

The literature in the area of mainstreaming and integration has become extensive during the past twenty years. Though most of the reported research is based on American samples, much of it is likely relevant to the Canadian population, and certainly deserves replication within our educational systems. Due to the fact that integration represents a large, multifaceted domain, research has had to focus on more specific variables such as teacher knowledge, attitudes, the social skills of special needs students, social acceptance and academic achievement within different settings. However, independent of the variable selected for investigation, the results have inevitably tended to be the same--ambiguous. Within most disability groups (though mentally handicapped and learning disabled students are represented most frequently in the literature) some studies have indicated positive findings in favour of the regular classroom, others have found self contained classrooms to be more advantageous and still others have reported mixed findings or no significant differences. Some examples of more commonly researched issues will be presented shortly.

The problem of ambiguity or mixed results has plagued most avenues of integration research. It also makes global interpretations and generalizations of results difficult. The reasons for variation in research results are fairly easy to appreciate, for they represent basic inherent ethical and methodological problems in both conducting and replicating studies in a field as complex and multi-dimensional as integration. These problems include issues such as lack of random selection and assignment of students to different classrooms, and inability to match subjects on all relevant variables including the prevailing attitudes of school staff, lack of adequate or consistent evaluative measures, absence of control over teacher abilities and knowledge, and lack of control over variations in curriculum. In addition, as Polloway (1984) points out, rarely, if ever, have the best of special education programs including well qualified teachers, effective curriculum and early placement been compared with the best of regular class situations that include an effective resource program, teacher consultation and early intervention.

Ethical and methodological concerns will always make it difficult if not impossible to approach global questions such as the efficacy of self contained versus regular classrooms on a purely empirical basis. It is also impossible to confidently generalize findings from other school systems to our own, or among different disability groups. However, results from other systems can raise important questions and provide guidance in developing research protocols. In the end the most effective research we can carry out might be in evaluating our own programs both within school boards and between neighbouring boards who rely on varying methods of program implementation. Results could then be used to describe students and their progress within our classrooms, and to guide continuing program development within our own boards, rather than to make widespread generalizations about different types of special educational and regular class placements.

The remainder of this paper will focus on a number of specific variables or dependent measures that are relevant when considering integration for students with special needs. These include: academic achievement, social acceptance and interaction, self concept, and teacher attitudes and knowledge.

ACADEMIC ACHIEVEMENT

Relative to studies of social acceptance or adjustment of students in segregated versus regular classrooms, differences in academic achievement have received little attention (e.g.,Polloway & Snell, 1975; Polloway, 1984). This is primarily because academic achievement research is subject to significant methodological problems (Sabornie, 1985) such as an inability to randomly place students into different classrooms or to control for differences in curriculum or instructional techniques. In addition, merely placing a student into a self contained classroom with reduced numbers does not guarantee that the program will meet his/her learning needs.

Though data prior to and during the 1970's with mentally handicapped students revealed either no significant difference (Budoff & Gottlieb, 1976) or support for the regular classroom (Walken 1974; see Cegelka & Tyler, 1970 for a review of earlier studies), the findings cannot be generalized to the present when students attending programs in regular schools represent a wider range of functional abilities. Advances have also been made in instructional methods, curriculum and in identifying learning needs. Today research in this area would also be confounded by the use of resource room support.

Given that questions about academic achievement relative to self contained versus regular classrooms cannot be answered in a controlled empirical manner, efforts should focus on early identification of the learning needs of individual children, and identifying the type of classroom environment in which these needs can be most consistently met with appropriate instruction and curriculum. We also need to monitor the progress of students in different settings in relation to their individual programs. Perhaps cooperative research efforts between school boards who approach the needs of similar students through different learning situations can begin to provide needed information in this area.

An issue related to achievement that also requires investigation concerns the preparation of special needs students for the transition from school to work and adult life. In the past a primary focus of segregated programs at the secondary level, especially those for mildly or moderately retarded students, was instruction and practice in job related skills. The goal was to provide students with marketable skills necessary for employment or participation in some productive activity,whether competitive or not, and with at least some degree of personal independence. Feelings of independence and productivity are important to developing a sense of personal worth.

With more special needs students attending programs in regular schools, it is important to look at how well or to what extent they are mastering skills necessary for adult life. In a recent conversation with a Vocational Rehabilitation Counsellor concern was expressed about the relative lack of marketable skills, experience and self esteem that she has observed in mentally handicapped students leaving programs whose primary focus has been integration. We must be concerned about subjective observations such as these and carefully assess whether there are differences in the opportunities available to these students at the end of their school years.

SOCIAL ACCEPTANCE AND INTERACTION

This is an area that has commanded significantly more research attention than academic achievement. One reason is that research concerned with social acceptance or social interaction has been somewhat more methodologically sound. Peer nomination and rating scale procedures, both with their relative advantages and disadvantages, have been developed to assess social acceptance (Gresham, 1983; Sabornie, 1985). Other researchers have used behavioural observation techniques in association with sociometric measures (Ladd, Munson & Miller, 1984; Levy & Gottlieb, 1984) because expressed liking or acceptance does not necessarily mean that children are included in positive social interaction.

From the viewpoint of the exceptional student, there are many factors that have propelled the movement toward integration. Among the most significant are the rights of the child or adolescent to be educated in the least restrictive environment (which for many is the regular classroom), and a concern about the social and emotional development of children with disabilities. During the past decade there has been an increasing awareness of the importance of peer relationships in stimulating cognitive and social development, as well as a more widespread feeling that segregating special education students stigmatizes them and contributes to problems of acceptance and consequently feelings of inferiority and poor self-esteem.

In response to these issues supporters of integration have assumed that it would naturally result in increased acceptance by peers and increased social interaction between disabled students and their non disabled peers. It was also assumed that disabled children would model or imitate the behaviour of their peers through greater exposure or proximity to them.

Unfortunately experience and the literature continue to show that these expectations are not being met as naturally or as frequently as we might hope. In my own experience tolerance and maintenance in the mainstream is

all too often confused with successful integration. Two extensive reviews of the literature (Meyers et al, 1980; Gresham, 1982) have pulled together a large number of investigations which offer no support for the expected benefits of integration. It's been shown that disabled students interact less frequently and more negatively with their peers than do non-disabled children, that they are often more poorly accepted by peers in regular settings, and that they do not model the behaviour of peers unless specific programming strategies are implemented.

It should be noted that though the overall literature on social acceptance is somewhat discouraging, the population of subjects in these studies is overwhelmingly represented by learning disabled, behaviourally disordered,emotionally disturbed and mentally handicapped children. As a group these children are known to experience higher incidences of adjustment and social competence problems (Cullinan & Epstein, 1985; McConaughy & Ritter, 1986). So it should come as no surprise that they are often not included, ignored or more actively rejected by their non-disabled peers.

Sabornie (1985) has also suggested that regular educators may not be truly aware of the social acceptance problems facing many handicapped populations. This question should be investigated. But rather than being discouraged by these findings, we should use the information constructively to create programs which assess social abilities, acceptance and behaviour in individual disabled students more systematically, and actively teach and reinforce social competencies. Empirical evidence does suggest that social skills training can assist children to interact more positively and to become better accepted by their peers (Gresham, 1982). Without appropriate assistance from educators children will continue to be negatively biased toward their disabled peers.

There is not a large body of research concerned with social acceptance or interaction involving disabled students who are not learning disabled, mentally handicapped or otherwise neurologically impaired. What little there is appears to be somewhat encouraging. Apodaca and his colleagues looked at the sociometric status of a small group of orthopedically disabled high school students who were integrated into at least one regular class (Apodaca, Mueller, Watson & Iseacson-Kailes, 1985). They found that other students generally liked these students, but no observations were made to assess the extent to which they interacted with their disabled peers. This study is difficult to interpret because of the amount of time the disabled students spent in regular classrooms is unknown, and there was no distinction made between neurologically versus orthopedically based physical disabilities.

In another study Hoben (1980) reported results including poor self concepts, limited social interaction and social immaturity in a group of visually impaired and hearing impaired students. Ladd and his research team (Ladd et al, 1984) found acceptance and positive social interaction between deaf and hearing high school students during school hours, but even students who participated in integrated friendships at school had little or no contact out of school. This may call into question the strength or quality of these friendships.

A number of researchers have stated that the most important measures in determining the success of integration programs should be social competence or social integration (Zigler & Seitz, 1980; Pearl, Bryan & Donahue, 1983). I support these proposals whole-heartedly and would also like to propose that an operational definition of successful "integration" for research purposes in our schools include regular spontaneous contact with peers, as well as spontaneous inclusion in activities. It is also important to look at contact between special needs students and their non-disabled peers outside of the classroom or school environment. If spontaneous self-initiated contact is not generalizing to their day-to-day lives, especially by adolescence, then the validity of our assumptions or true success of our programs must be questioned.

SELF CONCEPT

Self concept is a factor that has not received as much research attention in special education as one might expect. The importance of developing a positive concept cannot be underestimated. Without some degree of positive self esteem and confidence none of us could make important decisions, take risks or succeed in social situations. One of the most significant developmental tasks of childhood is creating a self concept and building positive self esteem. Together these reflect a person's judgement of his/her own capabilities, talents and power, as well as the extent to which an individual sees him/herself as being capable, successful and worthy. They influence behaviour, the kinds of tasks a child is willing to try, how he/she impresses other people and the kinds of social relationships that the child will develop.

As might be expected a child's growing and changing self concept will be influenced by the successes and failures he/she experiences in school. This raises questions about the possible effects of self contained versus integrated programs on the self concepts of disabled children. Inherent in the philosophy of integration is the conception that identifying children as in need of special education and segregating them would result in a lowered self concept (e.g., Guskin, Bartel & MacMillan, 1975). Research, albeit limited, has not supported this prediction (e.g., Smith, Dokecki, & Davis, 1977; Coleman, 1983; Dodd, 1984).

To summarize one study, Coleman (1983) looked at the self concepts of three groups of 9 to 12 year olds. These groups included regular students, mildly handicapped students in special education settings varying from partial integration to self contained, and children with academic difficulties who remained in the regular class. His results strongly suggest that lowered self concept cannot automatically be associated with special class placements. He found no significant overall group differences between the self concepts of regular and mildly disabled students, and no differences between disabled students in partially integrated versus self contained classes. Low self concepts were most evident in children who remained solely in regular classes while experiencing substantial academic difficulties.

These results are well explained by social comparison theory which in simplest terms states that in the absence of objective standards of comparison, we base our own feelings of self worth on the comparisons we make between ourselves and others. Children, who are unable to use objective indices or reasoning, will therefore compare their abilities to those of their immediate peer group. Thus, rather than lower self concept, a special class or resource room placement may actually enhance a child's sense of self worth.

TEACHER ATTITUDES AND KNOWLEDGE

The significant role that teacher attitudes play in the process of integration is well described in the literature (e.g., Hannah & Pilner, 1983). While regular class placements can be instituted through laws and parental involvement, in the end it is the way teachers perceive their role in the class and how they respond to the learning and social needs of individual students that is by far one of the most critical variables in both determining the success of integration and encouraging peer interaction. Teachers spend large amounts of time with their students during the course of a school year, and their responses and expectations can have a significant impact on a child's development and acceptance in a group.

As might be expected a review of the literature would reveal both positive and negative teacher attitudes toward both the disabled and the integration of disabled students into regular classrooms (see Curtis, 1985, for a list of references). In a study of teacher attitudes and inservice needs in southern Ontario Hummel, Dworet and Walsh (1985) reported a mean total attitude score,but unfortunately did not comment on the variation or interpret their finding in terms of overall positive or negative attitudes.

There is still a great deal that we might want to know about teacher and administrative attitudes and their perceptions of the effects of integration on students in our schools. Data on questions regarding one's personal commitment to integration, willingness to accept special needs students into a classroom and under what conditions, and opinions on how integration is working in individual classrooms would be very informative. Ringlaben and Price (1981) looked at responses to these types of questions in Wisconsin school districts. Their data are quite interesting, but too lengthy to describe here. A sample of responses showed that 52% of teachers felt mainstreaming was having a positive effect on the special needs students; 22% felt the effect was negative. Twenty-six percent felt that the mainstreamed children were having a negative effect on the other students; 62% felt they were having no effect at all on the others.

Mixed findings are also evident in studies of the attitudes of education students. In a study at an American university Schmelkin and Lieberman (1984) found generally positive attitudes toward mainstreaming, but also reported that little is being done to prepare regular education students for work in classrooms with integrated students. These education students attributed high ratings to the importance of knowledge in the area, but low ratings to the actual knowledge they were receiving.

In a study of education students at the University of British Columbia Curtis (1985) found only marginally favourable attitudes toward the disabled and toward integration, with special education students being more accepting than students in regular education. These students also felt that teachers are not adequately prepared for integration, and that children who are mentally handicapped, severely physically disabled, blind or deaf should not be integrated into regular classrooms. These kinds of findings point to the critical importance of encouraging a commitment to integration through education and exposure to children with special needs beginning early in a teacher's training. This study would be well worth replicating in other universities.

Another line of research in this area has focused on variables associated with positive teacher attitudes toward integration. In one study Larrivee and Cook (1979) found that a teacher's perception of his/her success with special education students was the most significant variable associated with positive attitudes. This finding was replicated in southern Ontario (Hummel et al, 1984). Other factors found to be associated with positive attitudes include the number of special education courses taken (Stephens & Braun, 1980), though in one study actually taking these courses appeared to be related to salary increments and not a desire to take special education courses per se (Ammer, 1984); grade level taught with elementary teachers being more willing to integrate disabled students (Stephens & Braun,1980; Ammer, 1984); and communication and sharing of responsibility between special education and regular classroom teachers (Ammer, 1984).

Hummel and his colleagues (1985) also found direct experience teaching exceptional students to be significantly correlated with implementing individualized teaching strategies with the assistance of resource support. Ammer's (1984) study did not differentiate between teachers who had or did not have previous experience, but he noted that 85% of his sample reported that they provided almost no specific accommodations for students integrated into their classrooms. In addition he found no indication that regular class teachers who had taken special education courses were implementing strategies that might increase the chances of successful performance by mainstreamed students.

In the literature the factor of knowledge about disabled students has generally been associated with the number of special education courses taken (e.g., Stephens & Braun, 1980; Hannah & Pliner, 1983). It would be interesting to see a study designed to look at the knowledge teachers have about the individual children integrated into their classrooms. For example: What is the nature of the child's physical and/or learning disabilities? If the child has a neurologically based physical disability such as hydrocephalus or cerebral palsy, what types of learning difficulties should they watch for? What are the child's learning and social strengths and weaknesses? What strategies can be used to modify the curriculum to meet his/her needs in light of the learning profile? What can be done to enhance social integration? What adaptive materials or devices does the child need?

In recent weeks I have learned of a 7 year old with hydrocephalus and related fine motor problems who is being sent from her Grade 2 class to a Kindergarten for a period of time each day for work on strengthening her fine motor skills so that she can better keep up with written work in the classroom. This little girl's confidence and willingness to persist have suffered this year, perhaps because of an inadequate understanding of the nature of her disability and the fact that her hand skills will never be adequate for the type of classroom performance her teacher is looking for. In another instance the teacher of a multiply disabled teenager with a severe speech problem has refused to support the acquisition of a communication aid because she feels the young woman's speech will not improve if she has an assistive device. This faulty assumption has perhaps led to an unnessessary restriction in the opportunities this youngster has had to communicate with everyone in her environment. There is still so much to be done to maximize the chances of success for disabled children in integrated settings.

SUMMARY AND RECOMMENDATIONS

The movement in our society toward integrating disabled students into more regular educational settings grew from emerging social and moral concerns with equality of opportunity, human rights and individual rights. Decisions and policies have been based primarily on philosphical, legal and ethical grounds without supportive empirical evidence.

The extensive research literature which has subsequently appeared has produced mixed results and continuing debates about the relative advantages and disadvantages of the regular versus self contained classroom for certain disability groups, especially those whose rate of intellectual development or academic progress is significantly slower than that of the norm. One reason accounting for ambiguity and poor generalizability of the empirical data is the inherent ethical and methodological problems in controlling for the innumerable differences between various subject groups or school regions. A second reason may be the reality that the different personal and educational needs of individual students can only be met through provision of the continuum of educational opportunities from full time regular class placements to self contained classrooms.

If, as educators, we are truly committed to meeting the needs of individual students as opposed to disability groups, then perhaps it's time to lessen our focus on questions about the relative efficacy of self contained versus regular classrooms and begin to develop knowledge and implement strategies to better meet the unique learning and social needs of individual students. Many needs can be met in the regular classroom with appropriate resource support. Others will require more individualized and structured approaches which are impossible to adequately provide in the regular setting.

During the course of this presentation the importance of research in the areas of social acceptance, social interaction, self concept, and teacher attitudes and knowledge has also been discussed. In addition, there is a good deal of knowledge about factors which influence or contribute to successful efforts to integrate special needs students (Salend, 1984; Quintal, 1985; Stainback, Stainback, Courtnage & Jaben, 1985). Educators should be looking at whether or not these strategies are present in their own systems and implement those which are absent.

In conclusion there is no question that successful integration benefits both exceptional and non-exceptional students. Special education students should have the opportunity to experience regular learning situations, and to learn to interact with their peers. Additionally, regular students should have the opportunity to experience and accept individual differences within their own lives. However, the reality of mainstreaming is that regular students don't always accept their disabled peers as a natural matter of course and that successful integration is only achieved through the right combination of environmental factors, support services, attitudes of educators, teaching skills, and the personality, learning and social skills brought to the classroom by the disabled student. The goals of special educational research should be to evaluate how our current practices are affecting exceptional students and to learn under what conditions integration will be a successful experience for individual students. The avenues for future special education research in our own school boards are endless.

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